REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed November 17, 2003. Reconsideration and allowance of the application and pending claims are respectfully requested.

I. Claim Rejections - 35 U.S.C. § 103(a)

A. Rejection of Claims 22, 27-28, and 32-33

1. Statement of the Rejection

Claims 22, 27-28, and 32-33 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Varma (U.S. Patent No. 6,336,134) in view of Smith, et al. ("Smith," U.S. Pat. No. 6,282,564).

The rejection alleges that Varma discloses Applicant's invention substantially as claimed with the exception of (i) sending an inquiry to remote applications requesting notification when the remote applications are ready to receive events, and (ii) transmitting the events to the remote applications when the remote applications indicate a ready-to-receive status. The rejection concludes, however, that in view of the Smith disclosure, it would have been obvious to a person having ordinary skill in the art to add those features to the Varma system. Applicant respectfully traverses this rejection.

2. The Varma Reference

Varma discloses a system and method for synchronizing modifications to facilitate real-time collaboration. As is described by Varma with reference to Figure 3, the system includes multiple partition servers 31 and a collaboration server 32. Varma, column 7, lines 32-39. Collectively, the partition servers 31 are similar in function to a centralized server used in prior art systems described by Varma in relation to FIG. 1. Id.

at lines 64-67. Therefore, the partition servers receive and share modifications sent to them by clients. The partition servers, however, are assigned different "partitions" that may be modified. Id. at column 5, lines 39-63. The partitions pertain to different portions of a given document. Id. For example, one partition server may be associated with particular paragraphs of a text document, tables of a spreadsheet document, or objects of a drawing. Id.

The partition servers each include a first-in-first-out (FIFO) "queue" (not "buffer") in which modifications to be distributed to the various clients are ordered. Id. at column 7, line 64 to column 8, line 3. The partition servers to determine what modifications distribute to the clients based upon the order identified in the queue. Id. at column 8, line 4 to column 10, line 35. That order is "channel-order preserving" to provide a reasonable amount of fairness in modification distribution. Id.

3. Discussion of the Rejection

As acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office ("USPTO") has the burden under section 103 to establish a proper case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Accordingly, to make a proper case for obviousness, there must be some prior art teaching or established knowledge that would suggest to a person having ordinary skill in the pertinent art to fill the voids apparent in the applied reference. It is respectfully asserted that no such case has been made in the outstanding Office Action against Applicant's claims. Each of Applicant's independent claims are discussed separately in the following.

(a) Independent Claim 22

Claim 22 provides as follows:

> 22. A system for ensuring synchronization of multiple applications at remote locations, the system comprising:
>
> ***local application sharing logic*** configured to receive events to be shared from a plurality of local applications, the local application sharing logic further configured to transmit the events; ***remote application sharing logic*** configured to receive events from the local application sharing logic; and
>
> ***remote event buffering logic configured to buffer events received by the remote application sharing logic***, the remote event buffering logic ***further configured to determine if remote applications are ready to receive the events by sending an inquiry to the remote applications requesting notification when the remote applications are ready to receive the events***;
>
> the ***remote application sharing logic further configured to transmit events to the remote applications when the remote applications indicate a ready-to-receive status*** in response to the inquiry.
>
> (emphasis added).

As a first matter, Applicant notes that, although the Office Action states that Varma teaches each of "local application sharing logic" and "remote application sharing logic" and generally cites passages of the Varma reference's text, the Office Action does not identify those claimed features with particularity. For instance, is the Office Action alleging that Varma's partition servers comprise the "local application sharing logic" or is it Varma's distribution server that allegedly comprises that logic? Furthermore, what component of Varma's system comprises the "remote application sharing logic"?

Without such details, it is impossible for Applicant to effectively rebut the rejection. In other words, without a clear statement as to what aspects of Varma's system specifically account for each of Applicant's explicit claim limitations, Applicant is deprived a full and fair opportunity to respond to the rejection.

Irrespective of the ambiguity of the outstanding rejection, it is clear that Varma's system does not comprise "remote event buffering logic configured to buffer events received by the remote application sharing logic" as is required by claim 22. First, as noted above, it is not clear what component or feature of Varma's system is being alleged to comprise "remote application sharing logic". Accordingly, it is difficult to respond to an allegation that Varma teaches buffering logic configured to buffer events *received by* that remote application sharing logic. Regardless, Varma simply does not teach "remote event buffering logic" as the following discussion elucidates.

As described above, Varma discloses a system that includes multiple partition servers that each include a FIFO "queue" which is used to assign an order to modifications to be distributed to the various clients. As is known by persons having ordinary skill in the art, a "queue" is not the same as a "buffer." Although both can contain data, the term "queue" merely pertains to an ordered list. As defined by webepedia, a continually-updated computer and Internet terminology dictionary, "queue" (as a noun) means:

> **n.)** *(1)* A group of jobs waiting to be executed. *(2)* In programming, a queue is a data structure in which elements are removed in the same order they were entered. This is often referred to as FIFO (first in, first out). In contrast, a ***stack*** is a data structure in which elements are removed in the reverse

order from which they were entered. This is referred to as LIFO (last in, first out).
webopedia.com, published November 7, 2003

Therefore, as described above, Varma's partition servers receive modifications and those modifications (really identifiers for those modifications) are placed in the queue or list so that the partition servers know which modification to distribute next. Compare that with the term "buffer," which is defined (as a noun) as provided in the following:

> **n.)** A temporary storage area, usually in RAM. The purpose of most buffers is to act as a holding area, enabling the CPU to manipulate data before transferring it to a device.
> Because the processes of reading and writing data to a disk are relatively slow, many programs keep track of data changes in a buffer and then copy the buffer to a disk. For example, word processors employ a buffer to keep track of changes to files. Then when you *save* the file, the word processor updates the disk file with the contents of the buffer. This is much more efficient than accessing the file on the disk each time you make a change to the file.
> Note that because your changes are initially stored in a buffer, not on the disk, all of them will be lost if the computer fails during an editing session. For this reason, it is a good idea to save your file periodically. Most word processors automatically save files at regular intervals.

From the above, it is clear that, unlike a mere order of items to execute (i.e., a data structure), a buffer is a temporary *storage area*. The distinction is significant. Specifically, although Varma states that modifications are "placed in the queue," the

queue does not actually store the modifications because a queue is only a list that is consulted when deciding which modification to send. In contrast, a buffer is a storage area (e.g., region of memory) in which the data (e.g., a "modification" or an "event") is actually stored. Therefore, although a queue such as Varma's FIFO queue can comprise a nearly endless list that identifies the order of modifications to distribute, a buffer, such as that claimed by Applicant, will only be able to contain a finite amount (as dictated by the size of the buffer) of actual event data.

In view of the above, it is not proper to simply equate a "queue" with a "buffer." Given that these two features are indeed distinct, the Office Action must either identify a buffer in the Varma system that buffers events received by remote application sharing logic or identify a suggestion for such a buffer in Varma or another prior art reference. Given that neither Varma nor Smith comprises such a suggestion, the rejection fails to render Applicant's claim 22 obvious.

As is acknowledged in the Office Action, Varma further fails to disclose remote event buffering logic "configured to determine if remote applications are ready to receive the events by sending an inquiry to the remote applications requesting notification when the remote applications are ready to receive the events" and remote application sharing logic "configured to transmit events to the remote applications when the remote applications indicate a ready-to-receive status in response to the inquiry". To account for these deficiencies of the Varma reference, the Office Action identifies the Smith reference, which is alleged to suggest adding such features to the Varma system.

As a first matter, Applicant notes that, as discussed above, Varma fails to teach remote event buffering logic as is recited in claim 22. In view of the fact that Smith likewise fails to teach such a feature, Smith cannot account for that shortcoming and,

therefore, Varma in view of Smith cannot render Applicant's claim 22 obvious. Irrespective of that fact, Applicant discusses the Smith disclosure in the following.

Smith discloses a method, system, and apparatus that pertain to "the exchange of stored information between a Stored Program Computer System (SPCS), such as located at a telephone company central office or elsewhere, and Customer Premises Equipment (CPE), such as an appropriately enable telephone. Smith, column 1, lines 7-11. Given that fact, it is not surprising that Smith says nothing about synchronizing data or partitioning documents. Accordingly, as a first matter, it is questionable whether the Smith reference is properly combinable with the Varma reference. Specifically, Smith and Varma appear to address distinct areas of technology and a person having ordinary skill in the art of data synchronization would not think to consult the Smith reference (which pertains to exchanges between telephone companies and their customers) to modify Varma's system.

Irrespective of whether the Varma and Smith references pertain to analogous areas of art, there is simply no motivation to add the aspect of determining if remote applications are ready to receive events to the Varma system. As has been well established in the law, teachings of references can be combined only if there is some suggestion or incentive to do so. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). In this case, it is clear that Varma says nothing about determining if remote applications are ready to receive events by sending an inquiry to the remote applications. Furthermore, Smith contains no suggestion that such a step could be used in a synchronization system such as Varma's system. Without such an appropriate suggestion provided by either reference, the rejection cannot comprise a proper rejection under 35 U.S.C. § 103(a).

(b) Independent Claim 27

Claim 27 provides as follows:

> 27. A method for ensuring synchronization of multiple applications at remote locations, the method comprising:
>
> transmitting events to be shared from a plurality of local applications;
>
> receiving events in a ***local application sharing logic***;
>
> transmitting the events from the local application sharing logic;
>
> receiving events, transmitted from the local application sharing logic, using ***remote application sharing logic***;
>
> ***buffering the events received in the remote application sharing logic***;
>
> ***determining if a plurality of remote applications are ready to receive the events*** by sending an inquiry to the remote applications requesting notification when the remote applications are ready to receive the events; and
>
> ***transmitting the events from the remote application sharing logic to the remote applications when the remote applications are ready to receive the events.***
>
> (emphasis added).

Applicant first notes that the Office Action has not identified within the Varma reference "local application sharing logic" or "remote application sharing logic", as noted above in relation to claim 22.

As a further point, in that Varma only teaches a FIFO queue, Varma does not teach "buffering the events received in the remote application sharing logic" as is required by claim 27. Applicant refers the Examiner to the discussion regarding claim 22.

As is acknowledged in the Office Action, Varma fails to disclose "determining if a plurality of remote applications are ready to receive the events by sending an inquiry to the remote applications requesting notification when the remote applications are ready to receive the events" as is required by claim 27. Applicant submits that the proferred combination of Varma and Smith does not render that aspect obvious and refers the Examiner to the discussion provided above regarding claim 22.

Given that the Varma/Smith combination does not render obvious "determining if a plurality of remote applications are ready to receive the events by sending an inquiry to the remote applications requesting notification when the remote applications are ready to receive the events" it logically follows that Varma/Smith does not render obvious transmitting the events from the remote application sharing logic to the remote applications when the remote applications are ready to receive the events".

(c) Independent Claim 32

Claim 32 provides as follows:

> 32. A system for ensuring synchronization of multiple applications at remote locations, said system comprising:
>
> means for transmitting events to be shared from a plurality of local applications;
>
> means for receiving events in a ***local application sharing logic***;
>
> means for transmitting the events from the local application sharing logic;

means for receiving events, transmitted from the local application sharing logic, in a ***remote application sharing logic***;

means for buffering the events received in the remote application sharing logic;

means for determining if a plurality of remote applications are ready to receive the events by sending an inquiry to the remote applications requesting notification when the remote applications are ready to receive the events; and

means for transmitting the events from the remote application sharing logic to the remote applications when the remote applications are ready to receive the events.

(emphasis added)

Applicant first notes that the Office Action does not identify in the Varma reference "local application sharing logic" or "remote application sharing logic" with particularity. Applicant refers the Examiner to the discussion of claim 22.

Moreover, the proffered combination does not properly suggest a system for ensuring synchronization including any of "means for buffering the events received in the remote application sharing logic", "means for determining if a plurality of remote applications are ready to receive the events by sending an inquiry to the remote applications requesting notification when the remote applications are ready to receive the events", or "means for transmitting the events from the remote application sharing logic to the remote applications when the remote applications are ready to receive the events" for reasons discussed above in relation to claim 22.

B. Rejection of Claims 24-26, 29-31, and 34-36

1. Statement of the Rejection

Claims 24-26, 29-31, and 34-36 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Varma and Smith in view of Hales, et al. ("Hales," U.S. Pat. No. 5,938,723).

2. Discussion of the Rejection

As identified above, the proffered Varma/Smith combination is insufficient to render Applicant's claims 22, 27-28, and 32-33 obvious. Given that Hales does not remedy the deficiencies of the Varma/Smith combination, Applicant respectfully submits that claims 24-26, 29-31, and 34-36 are likewise unobvious, and therefore allowable, for at least the reasons discussed in the foregoing.

II. New Claims

As identified above, claims 37-53 have been added into the application through this response. Applicant respectfully submits that these new claims describe an invention novel and unobvious in view of the prior art of record and, therefore, respectfully requests that these claims be held to be allowable.

III. Office Action Submission

Applicant submits herewith an Office Action (Attachment "A") received in application serial no. 09/507,435 for consideration of the Examiner.

CONCLUSION

Applicant respectfully submits that Applicant's pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

David R. Risley
Registration No. 39,345

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Assistant Commissioner for Patents, Alexandria, Virginia 22313-1450, on

2-12-04

Mary Meegan
Signature